

REMARKS

Claims 1-4, 6-10, 12-16, 18-22, and 24 are pending and stand rejected. Claims 1, 7, 13, and 19 are amended by way of this Amendment to clarify the subject of the invention. All pending claims are believed to be allowable over the references cited by the Examiner as discussed below. Accordingly, a Notice of Allowance for the present application is respectfully requested.

Amendments to Claims

Claims 1, 7, 13, and 19 are amended by way of this amendment to clarify the subject of the invention. No new matter is believed to be added by way of this amendment. For example, support for the amendments to the claims can be found in the specification at page 10, lines 16-19 which provides "It is preferred that the SLM be capable of altering its light-modulation characteristics in response to computer control such that the computer controls the pattern of electron beams emitted by the photocathode by controlling the SLM."

Rejection Under 35 U.S.C. §102(e)

Claims 1-7, 13, 19, and 24 stand rejected under 35 U.S.C. §102(e) as being anticipated by May et al. Applicants respectfully disagree.

Each of independent claims 1, 7, 13 and 19 is amended to clarify that the modulation of the radiation by the spatial light modulator is in response to computer control and controls the pattern of the electron beams emitted by the photocathode.

May discloses one embodiment (FIG. 1) in which a microlens array 1 focuses light onto the photoemission layer 5 through the cells of the liquid crystal layer 2. The photoemission layer 5 in turn generates electron beams, the directions of which depend on and are controlled by the voltages of the photoemission layer 5. In other words, only the photoemission layer 5 and not the liquid crystal layer 2 or the microlens array 1 is responsible for controlling the direction of the electron beams emitted by the photoemission layer. This embodiment does not anticipate the claims as it fails to provide a spatial light modulator (SLM) where the modulation controls the pattern of electron beams emitted. Rather, it is the voltages of the photoemission layer 5 that controls the pattern of electron beams emitted.

As is evident, May utilizes voltages of the photoemission layer 5 to control the pattern of electron beams emitted. In contrast, each of independent claims 1, 7, 13 and 19, as amended, utilizes computer control of the SLM (not the photoemitter as is the case with May) to control the pattern of electron beams emitted.

In view of the foregoing, withdrawal of the rejection of independent claims 1, 7, 13 and 19 as well as claims dependent variously therefrom under 35 U.S.C. §102(e) is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 2-4, 6, 8-10, 12, 14-16, 18, 20-22, and 24, dependent variously from independent claims 1, 7, 13, and 19, stand rejected under 35 U.S.C. §103(a) as being unpatentable over May in view of various secondary references. In particular, claims 4, 10, 16, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over May in view of Engstrom. Claims 2-3, 8-9, 14-15, and 20-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over May in view of Brandes. In addition, claims 6, 12, 18, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over May in view of Clark.

However, dependent claims 2-4, 6, 8-10, 12, 14-16, 18, 20-22, and 24 are allowable at least because the independent claims 1, 7, 13, and 19 from which they variously depend are allowable as discussed above.

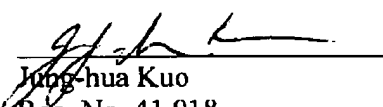
In view of the foregoing, withdrawal of the rejection of dependent claims 2-4, 6, 8-10, 12, 14-16, 18, 20-22, and 24 under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

In the unlikely event that the transmittal letter accompanying this document is separated from this document and the Patent Office determines that an Extension of Time under 37 CFR 1.136 and/or any other relief is required, Applicant hereby petitions for any required relief including Extensions of Time and/or any other relief and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-1217 (Order No. AMATP010).

Respectfully submitted,


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